

ABSTRACT

A cylinder 2, a roller 4, an upper bearing member 7 and a lower bearing member 8 form a space, the space is partitioned by a vane 5 into working chambers 12. Working fluid is sucked into the working chamber 12 through a suction hole 7c, the working fluid is expanded in the working chamber 12 whose volume is varied by rotation, and the working fluid is discharged from a discharge hole 2b into a discharge space 20. A differential pressure regulating valve 21 which is opened when pressure in the working chamber 12 is higher than pressure in the discharge space 20 is provided in the discharge hole 2b. With this, repressing can be carried out even if excessive expansion of working fluid is generated. Therefore, excessive expansion loss can be prevented.